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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/562,573

12/27/2005

Mats Erlandsson-Warvelin

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8602

26694 7590 10/01/2009  
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EXAMINER

NORTON, JENNIFER L

ART UNIT

PAPER NUMBER

2121

MAIL DATE

DELIVERY MODE

10/01/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/562,573	<b>Applicant(s)</b> ERLANDSSON-WARVELIN ET AL.	
	<b>Examiner</b> Jennifer L. Norton	<b>Art Unit</b> 2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-38 is/are pending in the application.
- 4a) Of the above claim(s) 8-10, 15-26 and 29-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 11-14 and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. The following is a **Final Office Action** in response to the Amendment received on 05 June 2009. Claims 1-4, 6, 11-14 and 27 have been amended. Claim 28 has been cancelled. Claims 8-10, 15-26 and 29-38 have been previously withdrawn. Claims 1-7 and 9-38 are pending in this application.

### ***Response to Arguments***

2. Applicant's arguments, see Remarks pgs. 10-12, filed 05 June 2009 with respect to claims 1-3 and 27 under 35 U.S.C. 102(b) have been fully considered but they are not persuasive.

3. Applicant argues that the prior art fails to teach, "sending a message from a control member to all machines controlled by the controller." The Examiner respectfully disagrees.

U.S. Patent No. 5,568,593 (hereinafter Demarest) teaches "When an acceptable (recognizable) needle position is entered into the FIFO buffer 155, **the robot controller will remove the needle position from the buffer and direct the robot gripper arm 55a,(55b) to move to that location on the conveyor belt as indicated at step 104.** Next, **for each recognized needle, the Robot Control task 150 will signal the robot gripper 55a,(55b) to close on the needle barrel portion 7 and to depart from the conveyor,** as indicated at step 106, to an approach location proximate the precision conveyor 35. The robot control task then generates a NEEDLE IN GRIPPER signal 207 to the PLC as indicated at step 108 and waits for a response from the PLC 120. As shown as step 109 in FIG. 8(a), and, in further view of FIG. 7, when the PLC receives a Robot task generated NEEDLE IN GRIPPER

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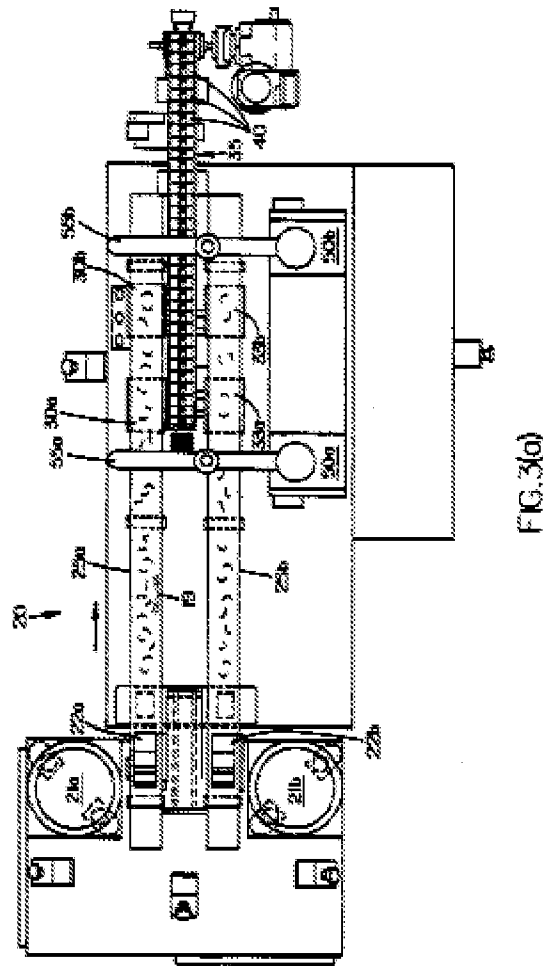
signal 207, the PLC 120 will generate a SAFE TO PLACE signal 191 for receipt by each of the robots 50a,b. The purpose of the SAFE TO PLACE signal 191 is to inform the respective robot assembly 50a,b that a needle may be placed onto a precision conveyor boat 40 of conveyor 35." (col. 8, lines 4-22)

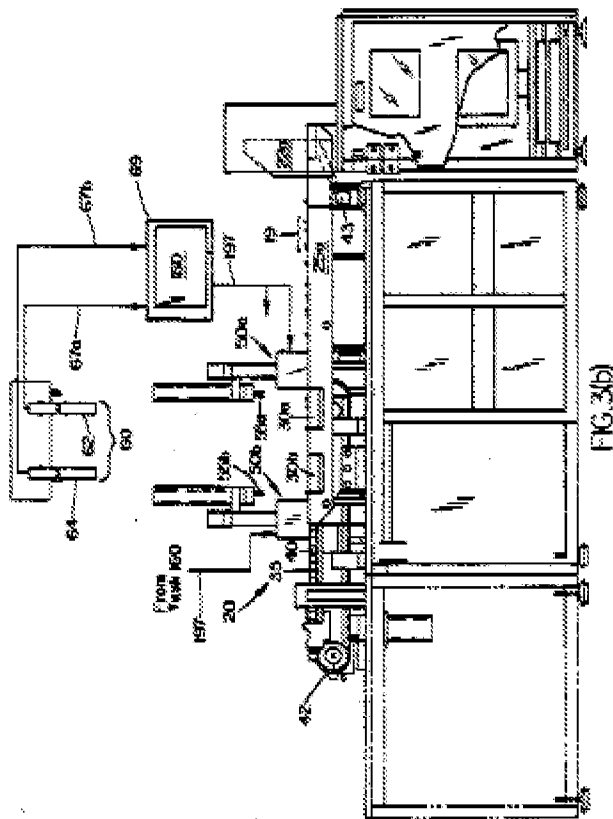
U.S. Patent

Oct. 22, 1996

Sheet 2 of 14

5,568,593





In summary Demarest sends a message (i.e. sending a move signal) from a control member (i.e. the robot controller) to all machines (Fig. 3(a) and 3(b), elements 55a and 55b; the robot gripper arms) controlled by the controller (i.e. robot controller). Hence, Applicant's claimed limitation, "sending a message from a control member to all machines controlled by the controller" is met by the Disclosure of Demarest.

4. In regards to Applicant's argument that U.S. Patent No. 5,914,880 (hereinafter Yasojima) fails to teach, "a plurality of first positions or sending all first positions to a

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plurality of machines controlled by a controller" (Remarks pg. 12, paragraph 2), the Examiner respectfully disagrees.

The Examiner recognizes the Applicant has not accounted for the prior art of Demarest as teaching the limitation "a plurality of first positions or sending all first positions to a plurality of machines controlled by a controller" as indicated in the Non-Final rejection mailed on 06 January 2009.

5. In regards to Applicant's argument that the combination of Demarest and Yasojima fails to teach, "sending a message from a control member to all machines controlled by the controller." The Examiner respectfully disagrees.

Demarest teaches "When an acceptable (recognizable) needle position is entered into the FIFO buffer 155, **the robot controller will remove the needle position from the buffer and direct the robot gripper arm 55a,(55b) to move to that location on the conveyor belt as indicated at step 104.** Next, **for each recognized needle, the Robot Control task 150 will signal the robot gripper 55a,(55b) to close on the needle barrel portion 7 and to depart from the conveyor,** as indicated at step 106, to an approach location proximate the precision conveyor 35. The robot control task then generates a NEEDLE IN GRIPPER signal 207 to the PLC as indicated at step 108 and waits for a response from the PLC 120. As shown as step 109 in FIG. 8(a), and, in further view of FIG. 7, when the PLC receives a Robot task generated NEEDLE IN GRIPPER signal 207, the PLC 120 will generate a SAFE TO PLACE signal 191 for receipt by each of the robots 50a,b. The purpose of the SAFE TO PLACE signal 191 is to inform the respective robot assembly 50a,b that a needle may be placed onto a precision conveyor boat 40 of conveyor 35." (col. 8, lines 4-22)

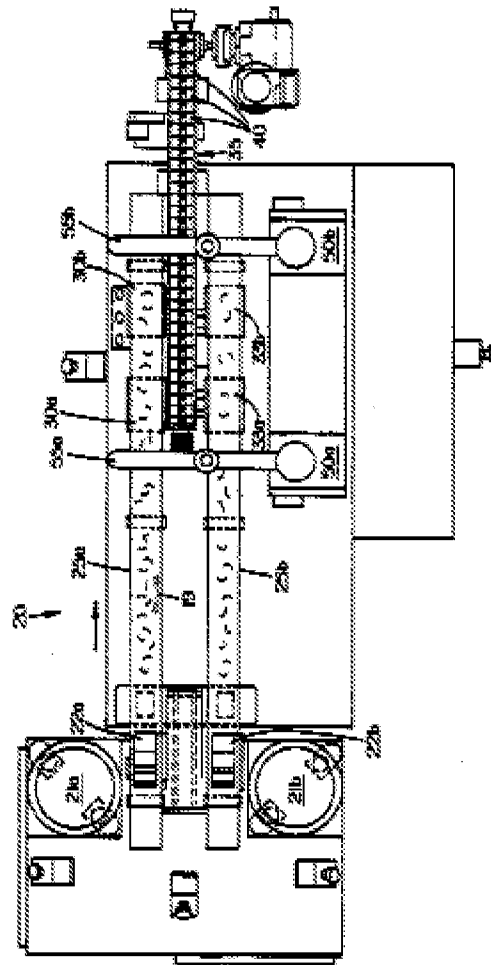
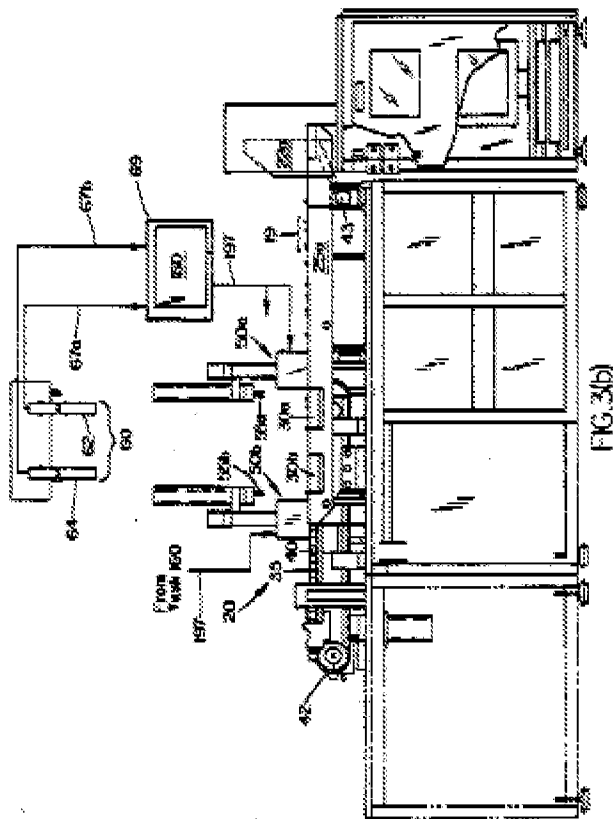


FIG. 3(a)

U.S. Patent      Oct. 23, 1996      Sheet 3 of 14      5,568,593



In summary Demarest sends a message (i.e. sending a move signal) from a control member (i.e. the robot controller) to all machines (Fig. 3(a) and 3(b), elements 55a and 55b; the robot gripper arms) controlled by the controller (i.e. robot controller). Hence, Applicant's claimed limitation, "sending a message from a control member to all machines controlled by the controller" is met by the Disclosure of Demarest.

6. In regards to Applicant's argument that U.S. Patent No. 4,580,207 (hereinafter Arai) fails to teach, "a plurality of first positions or sending all first positions to a



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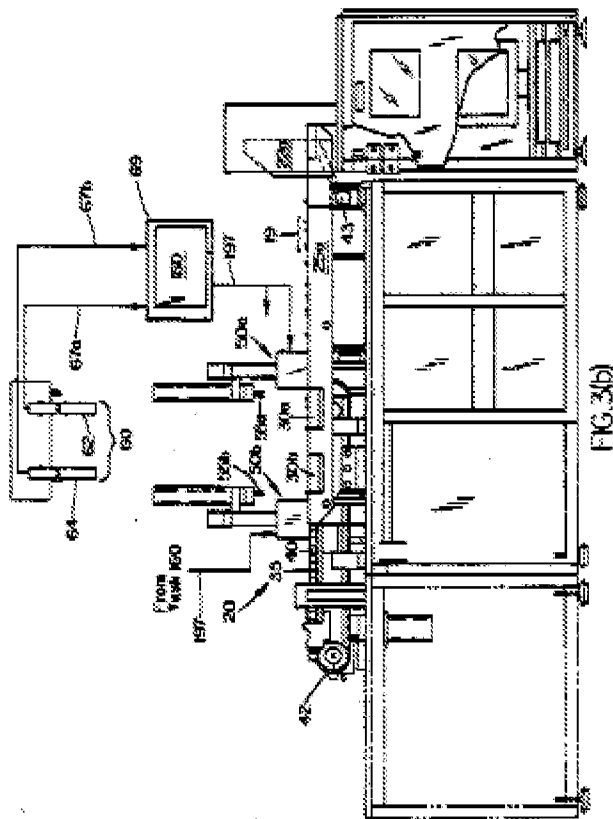
plurality of machines controlled by a controller" (Remarks pg. 12, paragraph 3), the Examiner respectfully disagrees.

The Examiner recognizes the Applicant has not accounted for the prior art of Demarest as teaching the limitation "a plurality of first positions or sending all first positions to a plurality of machines controlled by a controller" as indicated in the Non-Final rejection mailed on 06 January 2009.

7. In regards to Applicant's argument that the combination of Demarest, Yasojima and Arai fails to teach, "sending a message from a control member to all machines controlled by the controller." The Examiner respectfully disagrees.

Demarest teaches "When an acceptable (recognizable) needle position is entered into the FIFO buffer 155, **the robot controller will remove the needle position from the buffer and direct the robot gripper arm 55a,(55b) to move to that location on the conveyor belt as indicated at step 104.** Next, **for each recognized needle, the Robot Control task 150 will signal the robot gripper 55a,(55b) to close on the needle barrel portion 7 and to depart from the conveyor,** as indicated at step 106, to an approach location proximate the precision conveyor 35. The robot control task then generates a NEEDLE IN GRIPPER signal 207 to the PLC as indicated at step 108 and waits for a response from the PLC 120. As shown as step 109 in FIG. 8(a), and, in further view of FIG. 7, when the PLC receives a Robot task generated NEEDLE IN GRIPPER signal 207, the PLC 120 will generate a SAFE TO PLACE signal 191 for receipt by each of the robots 50a,b. The purpose of the SAFE TO PLACE signal 191 is to inform the respective robot assembly 50a,b that a needle may be placed onto a precision conveyor boat 40 of conveyor 35." (col. 8, lines 4-22)





In summary Demarest sends a message (i.e. sending a move signal) from a control member (i.e. the robot controller) to all machines (Fig. 3(a) and 3(b), elements 55a and 55b; the robot gripper arms) controlled by the controller (i.e. robot controller). Hence, Applicant's claimed limitation, "sending a message from a control member to all machines controlled by the controller" is met by the Disclosure of Demarest.

***Claim Rejections - 35 USC § 112***

8. The amendment to the Claims was received on 05 June 2009. The correction is acceptable and the rejection is withdrawn.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S.

Patent No. 5,568,593 (hereinafter Demarest).

11. As per claim 1, Demarest discloses a method for controlling a machine to pick up an item from a first position and place the item in a second position (col. 3, lines 56-65), wherein a sensor member provides data on said first position to a control member configured to control a plurality of machines (col. 4, lines 23-31), the method comprising:

    sending a message from a master process of the control member (col. 5, lines 63-67 and Fig. 3(b), element 69) comprising one or more said first positions to all said machines (Fig. 1, element 50a or 50b) controlled by said control member (col. 7, lines 51-53 and 64-67 and col. 8, lines 1-13; i.e. the Robot Control task associated with

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each robot controller, wherein each Robot Control task manages a respective robot),  
and

sending a message from said control member to all said machines with an  
indicator member specifying which of the one or more first positions shall be used (col.  
8, lines 4-13 and Fig. 8(a), element Step 104 and 106).

12. As per claim 2, Demarest discloses the method according to claim 1, further  
comprising:

receiving a message (Fig. 8, element 207; i.e. NEEDLE IN GRIPPER signal) from  
one of said machines with a status that said specified first position has been used (col.  
8, lines 13-15), and

sending a message (Fig. 8, element 191; i.e. SAFE TO PLACE signal) comprising  
said first position, or more said first positions, to all said machines controlled by the  
control member in which message each said first position is marked with a status of  
used or not (col. 8, lines 13-20).

13. As per claim 3, Demarest discloses the method according to claim 1, further  
comprising:

receiving at one of said machines the message comprising one or more said first  
positions, handling an item ( i.e. needle) placed one of the one or more of said first  
positions (col. 8, lines 4-13 and Fig. 8(a), element Step 104 and 106), and

sending a message (Fig. 8, element 207; i.e. NEEDLE IN GRIPPER signal) to the control member comprising the information that one or more of said first positions where said item was handled has been used (col. 8, lines 13-20).

***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Demarest.

16. As per claim 4, Demarest teaches the method according to claim 1, further comprising:

updating in said control member a marker of one of said first positions to read used (col. 8, lines 34-40 and 47-52; i.e. NEEDLE PLACE COMPLETE received by the PLC).

Demarest does not expressly teach within the same embodiment of steps sending from the control member to all machines controlled by said control member a message that a status of the said first position consumed is equal to used.

Demarest teaches sending from the control member to all machines controlled by said control member a message that a status of the said first position consumed is equal to used (col. 8, lines 13-20).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Demarest to teach within the same embodiment of steps to include sending from the control member to all machines controlled by said control member a message that a status of the said first position consumed is equal to used to provide an cost effective sorting device that virtually eliminates operators exposure to repetitive manual operations (col. 2, lines 11-13).

17. Claims 5-7 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Demarest in view of U.S. Patent No. 5,914,880 (hereinafter Yasojima).

18. As per claim 5, Demarest does not expressly teach the method according to claim 1, further comprising: selecting with a control member one or more specific said first positions to be handled by a specific machine.

Yasojima teaches to selecting with a control member (Fig. 3, element 30 of Fig. 2, element 20) one or more specific operation to be handled by a specific machine (col. 4, lines 38-50).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Demarest to teach selecting with a control member one or more specific operation to be handled by a specific machine to provide improved operability and facilitation of expansion of a transfer machine control apparatus (col. 1, lines 65-67).

19. As per claim 6, Demarest teaches as set forth above the control member uses a algorithm to select one of said first positions to be handled by one specific machine of all machines (col. 4, lines 23-31 and col. 12, lines 15-25).

20. As per claim 7, Demarest teaches as set forth above the control member carries out a repeated triggering of a first position (col. 7, lines 64-67 and col. 8, line 1).

21. As per claim 27, Demarest teaches to a computer program product, comprising:

computer code means and/or software code portions (i.e. computer software programs) when loaded into a computer or processor (col. 5, lines 63-67 and Fig. 7, element 120) will make the computer or processor (Fig. 7, element 120) perform a method for controlling a machine (Fig. 1, element 50a and/or 50b) to pick up an item from a first position and place the item in a second position (col. 3, lines 56-65),



wherein a sensor member provides data on said first position to a control member (Fig. 3(b), element 69) **configured to control (as opposed to actually controlling)** a plurality of machines (col. 4, lines 23-31 and Fig. 1, element 50a and 50b), the method comprising sending a message from a master process of the control member (col. 5, lines 63-67 and Fig. 3(b), element 69) comprising

one or more said first positions to all said machines (Fig. 1, element 50a and 50b) controlled by said control member (col. 7, lines 51-53 and 64-67 and col. 8, lines 1-13; i.e. the Robot Control task associated with each robot controller, wherein each Robot Control task manages a respective robot), and

sending a message from said control member to all said machines with an indicator member specifying which of the one or more first positions shall be used (col. 8, lines 4-13 and Fig. 8(a), element Step 104 and 106).

Demarest does not expressly teach computer code means and/or software code portions recorded on the computer readable medium.

Yasojima teaches to a computer code means and/or software code portions in a computer readable medium (col. 4, lines 65-67 and col. 5, lines 1-2).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Demarest to a computer

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code means and/or software code portions in a computer readable medium to provide improved operability and facilitation of expansion of a transfer machine control apparatus (col. 1, lines 65-67)

22. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Demarest in view of Yasojima in further view of U.S. Patent No. 4,580,207 (hereinafter Arai).

23. As per claim 11, Demarest nor Yasojima expressly teach allocating one of said first positions to a specific machine dependent on load balancing for a plurality of machines controlled by the control member.

Arai teaches to allocating one of said first positions to a specific machine dependent on load balancing for a plurality of machines controlled by the control member (col. 5, lines 28-44).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Demarest in view of Yasojima to include allocating one of said first positions to a specific machine dependent on load balancing for a plurality of machines controlled by the control member to improve the production efficiency such as improvement of a utilization factor of the facilities (col. 8, lines 18-21).

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24. As per claim 12, Demarest nor Yasojima expressly teach allocating said first position to a specific machine dependent on load balancing for all of the machines controlled by the control member.

Arai teaches to allocating a job to a specific machine dependent on load balancing for all of the machines controlled by the control member (col. 5, lines 28-44 and col. 6, lines 23-27).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Demarest in view of Yasojima to include allocating a job to a specific machine dependent on load balancing for all of the machines controlled by the control member to improve the production efficiency such as improvement of a utilization factor of the facilities (col. 8, lines 18-21).

25. As per claim 13, Demarest nor Yasojima expressly teach allocating one of said first positions to a specific machine dependent on a stoppage that has occurred in a work group controlled by the control member

Arai teaches to allocating a job to a specific machine dependent on a stoppage that has occurred in a work group controlled by the control member (col. 5, lines 28-44 and col. 6, lines 23-27).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Demarest in view of Yasojima to include allocating a said job to a specific machine dependent on a stoppage that has occurred in a work group controlled by the control member to improve the production efficiency such as improvement of a utilization factor of the facilities (col. 8, lines 18-21).

26. As per claim 14, Demarest nor Yasojima expressly teach allocating one of said first positions to a specific machine dependent on the removal from service of another specific machine in the work group controlled by the control member.

Arai teaches to allocating one of said first positions to a specific machine dependent on the removal from service of another specific machine in the work group controlled by the control member (col. 5, lines 28-44 and col. 6, lines 23-27).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of Demarest in view of Yasojima to include allocating one of said first positions to a specific machine dependent on the removal from service of another specific machine in the work group controlled by the control member to improve the production efficiency such as improvement of a utilization factor of the facilities (col. 8, lines 18-21).

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to robotic control.

U.S. Patent No. 6,804,580 discloses a system for controlling a plurality of robots and a method for controlling said system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer L. Norton whose telephone number is (571)272-3694. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on 571-272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. I

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

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Customer Service Representative or access to the automated information system, call

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/Albert DeCady/  
Supervisory Patent Examiner  
Art Unit 2121